Aquaculture & Seafood: Key Issues

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In his exploitation of the sea man is still a barbarian – a ruthless hunter slaughtering whole species of animals without heeding the consequences. With earth's burgeoning human population to feed we must turn to the sea with new understanding and new technology. We need to farm it as we farm the land.

Jacques Cousteau, 1973

Fisheries and Aquaculture: Part of a Spectrum

- Response to overfishing: regulation
- Increasing demand met by aquaculture
- Maintain wild catch and enable rapid expansion of sustainable aquaculture
- Need new understanding technology
- One seafood market
- Seafood and health

Convergence, Overlap of Seafood Production Methods

- Private property and fisheries (limits, quotas, regulatory constraints)
- Hybrid production: salmon and oyster hatcheries, tuna fattening, holding lobsters
- Many coastal communities integrate wild harvest, aquaculture
- Aquaculture for enhancement

Global Challenges

- Meet increasing demand
- Enable aquaculture production
- Lower feed costs
- Commit resources to address BMP and technological issues
- Foster sustainable aquaculture
- Globalization

Why NOAA, Why Now?

- Momentum - The U.S. Ocean Commission, the President, permit applicants, and stakeholders asking NOAA to take active role
- Experience and responsibility to improve culture of marine species, increase seafood production, and replenish depleted species
- Responsibility to balance multiple uses and safeguard the marine environment
- Regional expertise and infrastructure: labs, Sea Grant, R&D partnerships, CZM

Regulatory Policy Framework

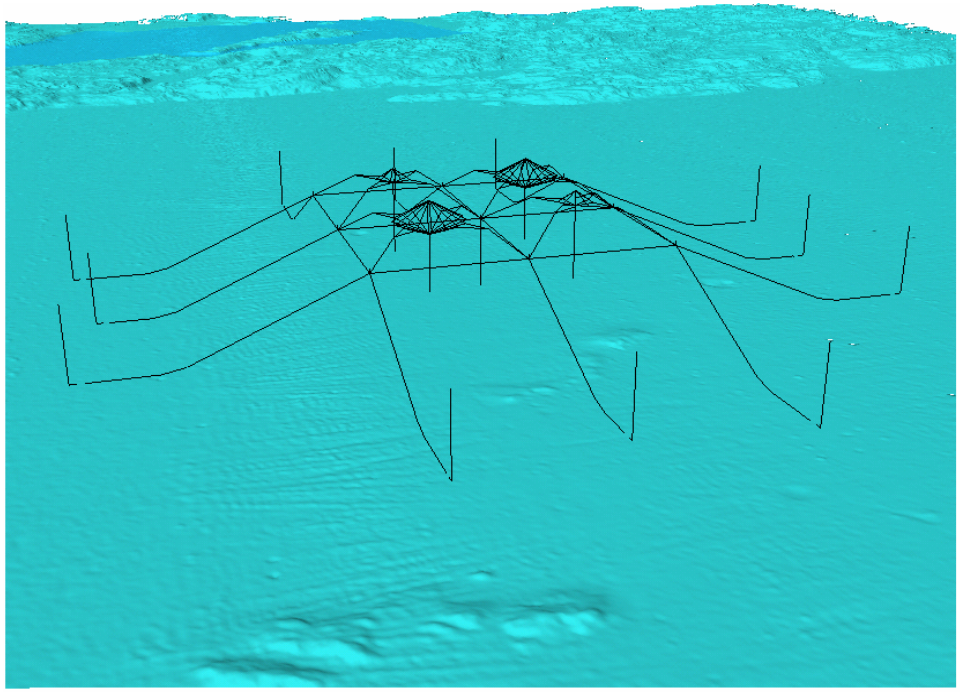
- Enabling: license to operate
- Stewardship: protect the environment and safeguard wild stocks
- Balance multiple uses
- Dynamic:

  learn by doing
- Responsive to

  stakeholders

Technology

- Species
- Feed supply sources and costs
- Aquatic animal heath
- Hatchery and growout technology



Environmental, BMP

- Sustainability
- Ecoeffective not just ecoefficient
- Risk management, precautionary principle
- Ecosystem management approaches
- Ecosystem health

Economic and Social Challenge

- Integrate aquaculture into coastal communities
- Social consensus and political will
- Produce seafood with range of technologies
- Price effects, competition, globalization
- Market growth

Outreach and Education

- Marine and seafood literacy
- Broadcast BMPs, lessons learned
- Gather and present environment information
- Seafood health and safety
- Demonstration projects
- Success stories

Marketing: Rebrand Aquaculture

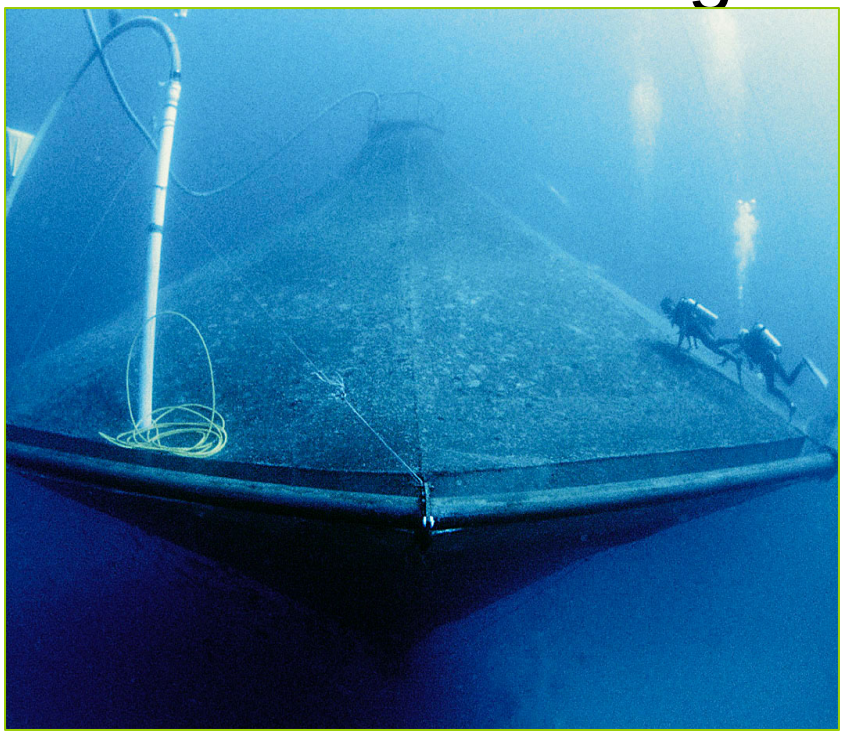
- Seafood health and safety
- Intelligent use of the seas
- Competition for center of plate
- Wild, farmed, hatchery offer high quality
- Niche markets, commodity products

International Exchange

- Globalization of knowledge
- Speed up pace of advances
- Aquatic animal health
- Marine ecosystem management
- Wild stock – aquaculture interactions
- Diversity of supply
- Community exchange

Next Steps - Global

- All of above initiatives in parallel
- Create dialog among constituencies
- Build it as we go



Next Steps - US

- Enhance domestic supply to meet growing demand for seafood
- Complement commercial fishing, opportunity for coastal communities
- Enable aquaculture, but within context of stewardship and balancing multiple uses
- Strong role for states, FMCs, stakeholders
- BMPs for aquaculture in use, refine them
- Economic questions being addressed
- International dialog, lessons learned